



directly communicate with each other, wherein multiple transceiver nodes in a clique utilize the same time slot for transmitting;

wherein the assigning step for each node comprises:

- (a) identifying one of the nodes;
- (b) identifying a first group of nodes, said first group of nodes comprising any nodes that directly communicate with the node identified in step (a);
- (c) for each node in the first group of nodes, identifying a second group of nodes, said second group of nodes comprising any nodes that directly communicate with said each node in the first group of nodes; and
  - (d) Including within a clique with the node identified in step (a) a node in said first group of nodes, and a node in said second group of nodes that communicates directly with the node identified in step (a) and with said node in said first group of nodes.
- 20. (Once Amended) The method of claim 30, wherein the assigning step for each node comprises:
  - (a) identifying one of the nodes;
- (b) identifying a first group of nodes, said first group of nodes comprising any nodes that directly communicate with the node identified in step (a);
- (c) for each node in the first group of nodes, identifying a second group of nodes, said second group of nodes comprising any nodes that directly communicate with said each node in the first group of nodes; and
  - (d) including within a clique with the node identified in step (a)
    - a node in said first group of nodes, and
  - a node in said second group of nodes that communicates directly with the node identified in step (a) and with said node in said first group of nodes.

P.04

- 21. (Once Amended) The method of claim 1, further comprising:
- (e) identifying all possible cliques to which said one of the nodes belongs by repeating steps (b), (c), and (d) until all possible combinations of nodes have been explored.
- 24. (Once Amended) The method of claim 23, wherein the step of choosing time slots comprises assigning time slots to the cliques according to a hierarchy wherein:
- cliques having a node that is a member of only one clique are first (a) assigned time slots.
  - 25. (Once Amended) The method of claim 24, wherein:
- cliques having at least as many neighboring cliques as any (b) neighboring clique are next assigned time slots.
  - 26. (Once Amended) The method of claim 25, wherein:
- cliques having two or more neighbors that were assigned time slots in steps (a) and (b) are next assigned time slots.
- 27. (Once Amended) The method of claim 26, wherein cliques having two or more neighbors that were assigned time slots in step (a) are next assigned time slots.

## Please add new claims 30-31 to the application as follows:

30. (New) A method for automatically managing the communication channel resources between two transceiver nodes having neighboring transceiver nodes in a network of transceiver nodes, wherein each node communicates during specific time slots and uses multiple frequencies on a time multiplex basis, the method comprising:

storing possible communication time slots and frequencies between nodes in the network at each transceiver node;

assigning each node to at least one of a plurality of cliques, wherein each of the plurality of cliques consists of a plurality of nodes that are positioned to directly communicate with each other, wherein multiple transcelver nodes in a clique utilize the same time slot for transmitting; and.

choosing time slots for each clique by assigning time slots to the cliques according to a hierarchy wherein:

- (a) cliques having a node that is a member of only one clique are first assigned time slots.
  - 31. (New) The method of claim 30, wherein:
- (b) cliques having at least as many neighboring cliques as any neighboring clique are next assigned time slots;
- (c) cliques having two or more neighbors that were assigned time slots in steps (a) and (b) are next assigned time slots;
- (d) cliques having two or more neighbors that were assigned time slots in step (a) are next assigned time slots;
- (e) cliques having a node that is not included in a clique that has previously been assigned a time slot are next assigned time slots; and
- (f) cliques that have not yet been assigned a time slot are assigned time slots.